# SNOWPLOW INDEX

| SNOWPLOW | PAGE |
|---|---|
| **Required & Recommended Equipment** | |
| F-150 | 2-3 |
| F-150 MID Series LED Headlamps | 4-5 |
| Super Duty F250/350/450/550/600 | 6-8 |
| Snowplow Best Practices for Battery Maintenance | 9 |

# Body Builders Layout Book

## SNOWPLOW

## REQUIRED & RECOMMENDED EQUIPMENT

## F-150



**MINIMUM REQUIRED EQUIPMENT - SNOW PLOW PREP PACKAGE (68P)**

**NOTE:** The engine Outside Air Temperature (OAT) sensor is now located in the driver's side mirror.

- 4x4 only
- Requires 5.0L VB engine (995)
- XL trim (only) - requires Rear-window, Fixed Privacy Glass with Defroster (924/57Q)
- XLT 300A Base - requires Rear-window Defroster (57Q)
- Lariat trim (only) - Electronic Shift-On-The-Fly (ESOF) replaces standard 2-speed automatic 4WD
- Lariat Technology Package not available with Snowplow Prep Package (68P)
- Available on Regular Cab, Super Cab and Super Crew models (5.5', 6.5' and 8.0' boxes)
- Available with XL, XLT and Lariat Trim
- Both regular and heavy-duty payload packages
- 'Snowplow Mode" when activated by either the button on the instrument panel or in the Sync feature screen will disable (load shed) the following features to maintain required electrical charge margins during plow operation/use----400-Watt Inverter Outlet, Fog Lamps, Heated/Cooled front/rear seats.
- Snowplow mode button also activates relay to snowplow controls

**WARRANTY**

**NOTE: The F-150, snowplow installation is intended for *residential / personal use only.***

The Ford New Vehicle Limited Warranty applies to vehicles with snowplows installed in accordance with these guidelines. Consult your Ford dealer or the Owner Guide for any further questions.

**COMPLETED VEHICLE WEIGHT**

Recommended plow assembly and aft-of-rear axle ballast weight limits are shown in the attached chart. These snowplow weight limits are based upon a vehicle built with noted trim levels with no additional Ford option content, a total of 300 lb. for a driver plus one front seat passenger (150 lbs. each), ballast weight rearward of the rear axle, and additional assumptions for commercially available snowplow assembly weights and mounting location.

The vehicle must not be operated when over-loaded. A vehicle is over-loaded when the weight of the completed vehicle with aftermarket equipment installed, plus driver, passengers, and cargo, exceeds either the FGAWR, RGAWR, or GVWR established by Ford Motor Company and displayed on the Safety Compliance Certification Label.

The addition of ballast weight placed rearward of the rear axle is required to prevent exceeding FGAWR, and to provide good vehicle braking and handling. The ballast should be attached securely to the vehicle with consideration for the normal driving dynamics of snowplowing, and occupant safety in accidents .

**TOTAL ACCESSORY RESERVE CAPACITY**

For Ford completed vehicles of 10,000 GVWR or less, the weight of permanently attached aftermarket equipment must not exceed the Total Accessory Reserve Capacity (T.A.R.C.) displayed on the Safety Compliance Certification Label to maintain the compliance representation that came with the Ford-built vehicle. Exceeding T.A.R.C. will require re-certification. This applies only to the permanently attached equipment, such as the snowplow frame mounting hardware, and not to the removable portion of the snowplow blade assembly.

**FRONT END WHEEL ALIGNMENT AND HEADLIGHT AIM**

Front end wheel alignment (toe) and headlight aim may require readjustment after installation of snowplow equipment. Failure to reset front wheel alignment may cause premature uneven tire wear. If required, reset to chassis manufacturer's specifications found in the Ford Shop Manual

**ELECTRICAL CONNECTIONS**

Installation of any inductive load devices such as electric motors, or electric clutches for clutch pumps, must not be connected to Ford vehicle wiring or fuse panels. Power for such devices should be taken directly from the battery or starter motor relay power terminal. Control of these devices should be achieved via relays. No direct current path should exist between Ford vehicle wiring and the installed load that is not filtered by the battery. These recommendations are intended to eliminate or minimize any induced reverse voltage into the Ford circuitry. Refer to SVE Bulletin Q-277 "Under Hood Electrical Equipment Mounting" for clearance guidance applicable to the F-150 and Super Duty series vehicles.

**WARNING:** The 2021 F-150 charge state is determined by a Battery Management Sensor on the negative battery lead. All Negative current must pass thru this sensor-failure to do so will result in malfunction of the vehicle charging system and shortened battery life. Do not make direct to battery connections at the negative battery post. See SVE Bulletin Q-231 for additional guidance.

Vehicles equipped with a Snowplow prep option will include a Snowplow mode switch located either on the dash or the Sync feature screen that will activate a 20-amp B+ power to a dedicated feed for the snowplow controller- It is a blunt cut White wire found taped to the left side of the drivers side dash panel. When activated the vehicle will enter a special load shedding strategy to ensure continuous operation of the snowplow during periods of high electrical demand.

.

**WEIGHT TABLE SHOWN ON NEXT PAGE**

# Body Builders Layout Book

## SNOWPLOW

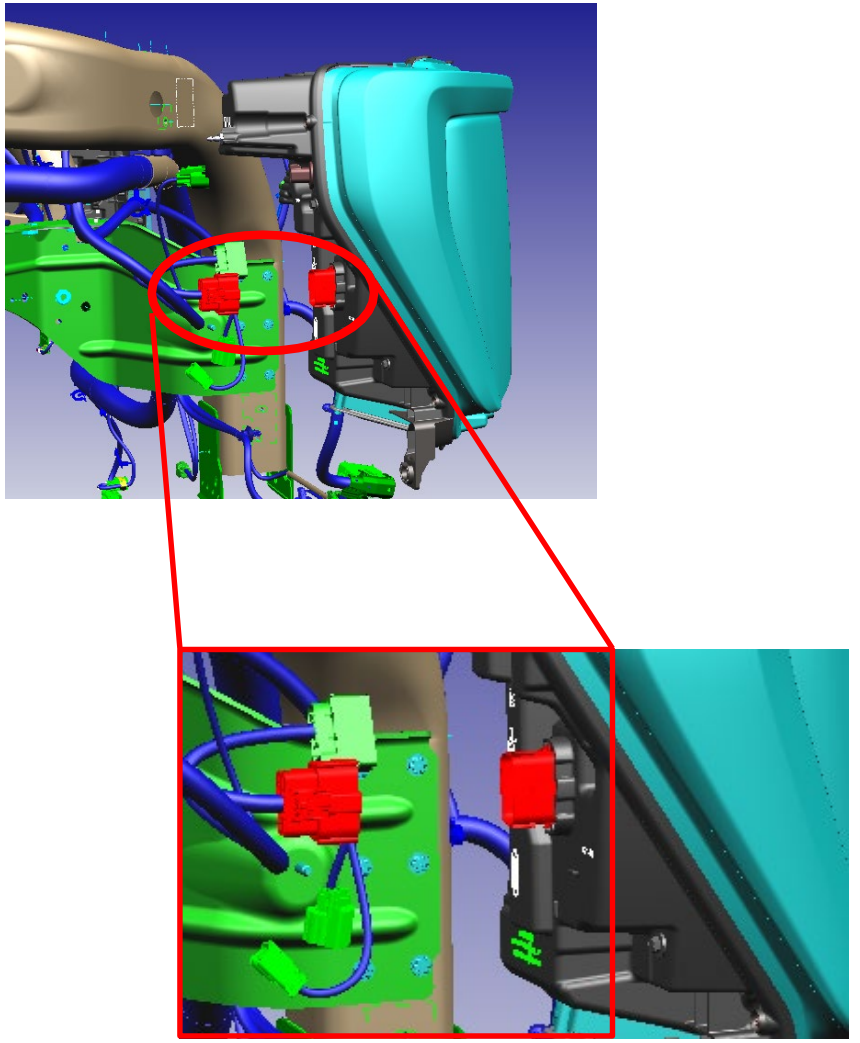
## REQUIRED & RECOMMENDED EQUIPMENT



## F-150

| | Vehicle Description | Engine | Wheelbase (in) | GVWR (lbs) | FGAWR (lbs) | RGAWR (lbs) | Trim | Trim Level | Base Curb Weight (lbs) Front | Base Curb Weight (lbs) Total | Mounting Hardware Weight (lb) | **Plow Blade Weight Capability @ FGAWR (lbs) Total** | Ballast Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Standard Payload | 4x4 R/Cab | 5.0L | 122.8 | 6400 | 3000 | 3800 | XL | lightest | 2721 | 4564 | 70 | **228** | 1200 |
| | | | | 6400 | 3000 | 3800 | | heaviest | 2741 | 4606 | 70 | **165** | 900 |
| | | | | 6400 | 3000 | 3800 | XLT | lightest | 2741 | 4604 | 70 | **215** | 1200 |
| | | | | 6400 | 3000 | 3800 | | heaviest | 2750 | 4635 | 70 | **159** | 900 |
| | 4x4 R/Cab | 5.0L | 141.5 | 6950 | 3300 | 4150 | XL | lightest | 2839 | 4650 | 70 | **327** | 1200 |
| | | | | 6950 | 3300 | 4150 | | heaviest | 2868 | 4721 | 70 | **307** | 1200 |
| | | | | 6950 | 3300 | 4150 | XLT | lightest | 2859 | 4690 | 70 | **313** | 1200 |
| | | | | 6950 | 3300 | 4150 | | heaviest | 2870 | 4721 | 70 | **305** | 1200 |
| | 4x4 S/Cab | 5.0L | 145.4 | 7050 | 3375 | 3800 | XL | lightest | 2881 | 4810 | 70 | **346** | 1200 |
| | | | | 7050 | 3375 | 3800 | | heaviest | 2910 | 4861 | 70 | **303** | 1050 |
| | | | | 7050 | 3375 | 3800 | XLT | lightest | 2907 | 4856 | 70 | **327** | 1200 |
| | | | | 7050 | 3450 | 3800 | | heaviest | 2976 | 5006 | 70 | **288** | 900 |
| | | | | 7050 | 3450 | 3800 | Lariat | lightest | 2971 | 4997 | 70 | **335** | 1200 |
| | | | | 7050 | 3450 | 3800 | | heaviest | 2985 | 5030 | 70 | **289** | 950 |
| | 4x4 S/Cab | 5.0L | 164.1 | 7150 | 3525 | 4150 | XL | lightest | 2881 | 4941 | 70 | **425** | 1100 |
| | | | | 7150 | 3525 | 4150 | | heaviest | 2910 | 4992 | 70 | **356** | 750 |
| | | | | 7150 | 3525 | 4150 | XLT | lightest | 2907 | 4987 | 70 | **419** | 1200 |
| | | | | 7150 | 3600 | 4150 | | heaviest | 2921 | 5020 | 70 | **390** | 650 |
| | | | | 7150 | 3600 | 4150 | Lariat | lightest | 2976 | 5126 | 70 | **411** | 1100 |
| | | | | 7150 | 3600 | 4150 | | heaviest | 2982 | 5164 | 70 | **345** | 650 |
| | 4x4 Crew | 5.0L | 145.4 | 7050 | 3450 | 3800 | XL | lightest | 2928 | 4912 | 70 | **366** | 1200 |
| | | | | 7050 | 3450 | 3800 | | heaviest | 2950 | 4945 | 70 | **314** | 950 |
| | | | | 7050 | 3450 | 3800 | XLT | lightest | 2948 | 4943 | 70 | **352** | 1200 |
| | | | | 7050 | 3525 | 3800 | | heaviest | 3018 | 5095 | 70 | **296** | 800 |
| | | | | 7050 | 3525 | 3800 | Lariat | lightest | 3014 | 5088 | 70 | **358** | 1200 |
| | | | | 7050 | 3525 | 3800 | | heaviest | 3027 | 5128 | 70 | **282** | 750 |
| | 4x4 Crew | 5.0L | 157.2 | 7150 | 3600 | 4150 | XL | lightest | 3098 | 5014 | 70 | **340** | 1200 |
| | | | | 7150 | 3600 | 4150 | | heaviest | 3120 | 5054 | 70 | **275** | 850 |
| | | | | 7150 | 3600 | 4150 | XLT | lightest | 3118 | 5049 | 70 | **326** | 1200 |
| | | | | 7150 | 3750 | 4150 | | heaviest | 3188 | 5204 | 70 | **320** | 750 |
| | | | | 7150 | 3750 | 4150 | Lariat | lightest | 3184 | 5195 | 70 | **387** | 1200 |
| | | | | 7150 | 3750 | 4150 | | heaviest | 3199 | 5237 | 70 | **312** | 750 |
| Heavy Payload (HPP) | 4x4 R/Cab HPP | 5.0L | 141.5 | 7850 | 3400 | 4800 | XL | lightest | 2895 | 4797 | 70 | **358** | 1200 |
| | | | | 7850 | 3400 | 4800 | | heaviest | 2939 | 4934 | 70 | **327** | 1200 |
| | | | | 7850 | 3400 | 4800 | XLT | lightest | 2950 | 4951 | 70 | **319** | 1200 |
| | | | | 7850 | 3400 | 4800 | | heaviest | 2961 | 4969 | 70 | **312** | 1200 |
| | 4x4 S/Cab HPP | 5.0L | 164.1 | 7850 | 3750 | 4800 | XL | lightest | 2975 | 5082 | 70 | **535** | 1200 |
| | | | | 7850 | 3750 | 4800 | | heaviest | 3012 | 5278 | 70 | **508** | 1200 |
| | | | | 7850 | 3750 | 4800 | XLT | lightest | 3021 | 5296 | 70 | **501** | 1200 |
| | | | | 7850 | 3750 | 4800 | | heaviest | 3035 | 5316 | 70 | **491** | 1200 |
| | | | | | | | - | | | | | | |
| | 4x4 Crew HPP | 5.0L | 157.2 | 7850 | 3750 | 4800 | XL | lightest | 3115 | 5199 | 70 | **437** | 1200 |
| | | | | 7850 | 3750 | 4800 | | heaviest | 3146 | 5382 | 70 | **415** | 1200 |
| | | | | 7850 | 3750 | 4800 | XLT | lightest | 3152 | 5402 | 70 | **410** | 1200 |
| | | | | 7850 | 3750 | 4800 | | heaviest | 3166 | 5419 | 70 | **400** | 1200 |
| | | | | | | | - | | | | | | |

## Right headlamp connector to snowplow jumper



| CNUM: C1LF09-A8 |
|---|
| Connector #: 4L3T–14A464–WA |

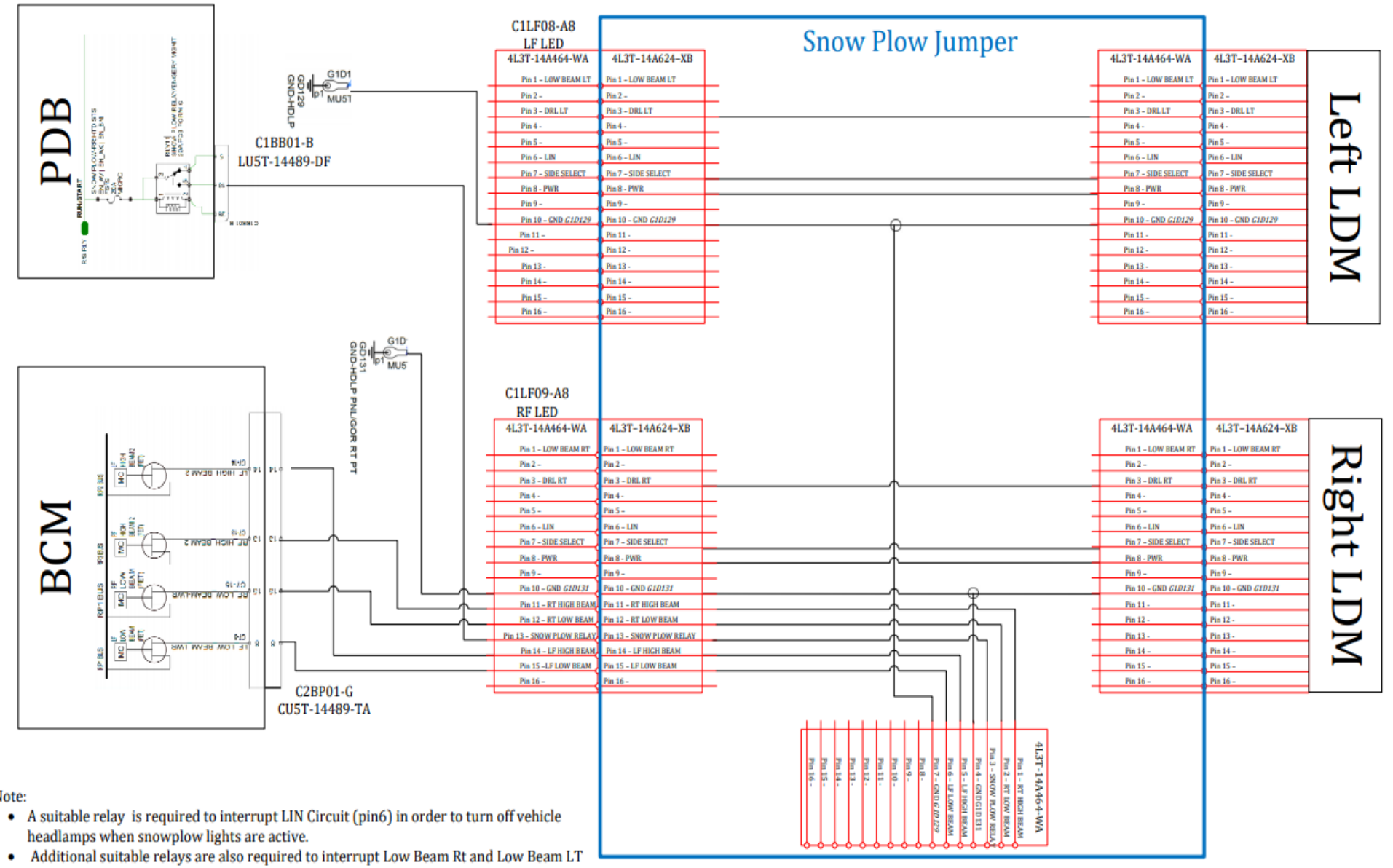
| Cavity | Circuit | Circuit Description | Option |
|---|---|---|---|
| 1 | CLF05 | Low Beam RT | LED Headlamps |
| 2 | N/A | N/A | N/A |
| 3 | CLF62 | DRL RT | LED Headlamps |
| 4 | N/A | N/A | N/A |
| 5 | N/A | N/A | N/A |
| 6 | VDN14 | LIN | LED Headlamps |
| 7 | CBBA0 | Side Select | LED Headlamps |
| 8 | CBBA0 | PWR | LED Headlamps |
| 9 | N/A | N/A | N/A |
| 10 | GD131 | GND | LED Headlamps |
| 11 | CLF94 | RT High Beam | LED Headlamps |
| 12 | CLF92 | RT Low Beam | LED Headlamps |
| 13 | CPD03SP | Snowplow Relay (B+ Power, 20 Amp) | LED Headlamps |
| 14 | CLF94 | LF High Beam | LED Headlamps |
| 15 | CLF91 | LF Low Beam | LED Headlamps |
| 16 | N/A | N/A | N/A |

**4L3T–14A464–WA**

# Body Builders Layout Book

## F-150 MID-SERIES
## LED HEADLAMPS






Note:

- A suitable relay is required to interrupt LIN Circuit (pin6) in order to turn off vehicle headlamps when snowplow lights are active.
- Additional suitable relays are also required to interrupt Low Beam Rt and Low Beam LT circuits when snowplow lights are active

# Body Builders Layout Book

## SNOWPLOW

## REQUIRED & RECOMMENDED EQUIPMENT

## SUPER DUTY F-250/350/450/550



The Super Duty F Series vehicles tabled below are available for snowplow usage. Plow and attaching hardware weights listed in tables below.

**Minimum Required Equipment**

- 4x4 (all pickups, F350 chassis cab)
- Snowplow Prep Package ( 473 ) which includes: Computer Selected Springs for Snowplow Application
- Gas engine 750 –CCA 78 Amp hour battery (standard snowplow prep)
- Diesel engine 750 –CCA 78 Amp hour dual battery
- 6.2L Gasoline: 200-amp alternator
- 7.3L Gasoline: 240-amp alternator
- 6.7L Diesel Pickup: 240-amp alternator
- 6.7L Diesel Chassis Cab: 332-amp dual alternators

**Recommended Equipment**

All terrain tires

Roof clearance lights (optional with SRW Pickup models, included on DRW Pickups and all Chassis Cabs).

- 6.2L Gasoline: Optional 240 amp (67E) and dual batteries (86M)
- 7.3L Gasoline: Optional 397-amp dual alternators (67B) and dual batteries (86M)
- 6.7L Diesel Pickup : Optional 397-amp dual alternators (67B)

**Standard Equipment**

Front and rear stabilizer bar (rear standard on Chassis Cab and DRW pickup models)

Roof clearance lights standard on Chassis Cab and DRW Pickups Steering damper

Engine oil cooler, automatic transmission oil cooler and maximum capacity engine coolant radiator are standard

All available axle ratios are acceptable

**Completed Vehicle Weight**

Snowplow weights (maximum recommended): Refer to the tables below.

The vehicle must not be operated when overloaded. A vehicle is overloaded when the weight of the completed vehicle with aftermarket equipment installed, plus driver, passengers and cargo, exceeds either the FGAWR, RGAWR or GVWR display ed on the Safety Compliance Certification Label.

The addition of ballast (up to a maximum of 1500lbs) weight placed rearward of the rear axle may be required to prevent exceeding the FGAWR, and provide good vehicle braking and handling. The ballast should be attached securely to the vehicle with consideration for the normal driving dynamics of snowplowing and occupant safety in accidents.

For Ford completed vehicles of 10,000 lb. GVWR or less, the weight of permanently attached aftermarket equipment must not exceed the Total Accessory Reserve Capacity (TARC) displayed on the Safety Compliance Certification Label to maintain the compliance representation that came with the Ford built vehicle. Exceeding TARC may require re certification. This applies only to the permanently attached equipment, such as the snowplow frame mounting hardware, and not to the removable portion of the snowplow blade assembly.

**Front End Wheel Alignment and Headlight Aim**

Front end wheel alignment (toe) and headlight aim may require readjustment after installation of snowplow equipment. Failure to reset front wheel alignment may cause premature uneven tire wear. If required, reset to chassis manufacturer's specifications found in the Ford Workshop Manual.

**Electrical Connections**

Installation of any inductive load devices, such as electric motors or electric clutches for clutch pumps, must not be connected to Ford vehicle wiring or f use panels. Power for such devices should be taken directly from the battery or starter motor relay power terminal. Control of these devices should be achieved via relays. No direct current path should exist between Ford vehicle wiring and the installed load that is not filtered by the battery. These recommendations are intended to eliminate or minimize any induced reverse voltage into the Ford circuitry. Refer to SVE Bulletin Q 277 "Under Hood Electrical Equipment Mounting" for clearance guidance.

**Warranty**

The Ford New Vehicle Limited Warranty applies to vehicles with snowplows installed in accordance with these guidelines. Consult your Ford dealer or the Owner's Guide for any further questions.

| Pickup(1) Driver and one Passenger | | | Permanent Hardware / Max Removable Plow Weight (2)(4) 250 SRW 4X4 (3) | 350 SRW 4X4 (3) | 350 DRW 4X4 (3) | 450 DRW 4X4 (3) |
|---|---|---|---|---|---|---|
| Regular Cab | 141.6" | 6.2L Gas | 100/1300 | 100/1300 | 100/1300 | / |
| | | 7.3L Gas | 100/1300 | 100/1300 | 100/1300 | / |
| | | 6.7 Diesel | 100/1155 | 100/1185 | 100/1190 | 100/1005 |
| Super Cab | 148.0" | 6.2L Gas | 100/1300 | 100/1285 | / | / |
| | | 7.3L Gas | 100/1300 | 100/1285 | / | / |
| | | 6.7 Diesel | 100/1005 | 100/1080 | / | / |
| | 164.2" | 6.2L Gas | 100/1285 | 100/1300 | 100/1300 | / |
| | | 7.3L Gas | 100/1280 | 100/1300 | 100/1300 | / |
| | | 6.7 Diesel | 100/905 | 100/965 | 100/945 | / |
| Crew Cab | 159.8" | 6.2L Gas | 100/1300 | 100/1300 | / | / |
| | | 7.3L Gas | 100/1300 | 100/1300 | / | / |
| | | 6.7 Diesel | 100/925 | 100/985 | / | / |
| | 176.0" | 6.2L Gas | 100/1300 | 100/1300 | 100/1300 | / |
| | | 7.3L Gas | 100/1300 | 100/1300 | 100/1300 | / |
| | | 6.7 Diesel | 100/755 | 100/835 | 100/815 | 100/675 |

| Chassis Cab Driver and One Pasenger | | | Permanent Hardware / Max Removable Plow Weight (2)(4) F350 SRW 4x4 (3) | F350 DRW 4x4 14,000 LB GVWR | F450 DRW 4x2 | F450 DRW 4x4 | F550 DRW 4x2 | F550 DRW 4x4 | F550+ DRW 4x2 | F550+ DRW 4x4 | F600 DRW 4x4 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Regular Cab | 145.0" | 6.2L Gas | 100/1350 | 100/1350 | / | / | / | / | / | / | / |
| | | 7.3L Gas | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 |
| | | 6.7 Diesel | 100/1225 | 100/1200 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 |
| | 169.0" | 6.2L Gas | / | 100/1350 | / | / | / | / | / | / | / |
| | | 7.3L Gas | / | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 |
| | | 6.7 Diesel | / | 100/1100 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 |
| | 193.0" | 6.2L Gas | / | / | / | / | / | / | / | / | / |
| | | 7.3L Gas | / | / | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 |
| | | 6.7 Diesel | / | / | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 |
| | 205.0" | 6.2L Gas | / | / | / | / | / | / | / | / | / |
| | | 7.3L Gas | / | / | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 |
| | | 6.7 Diesel | / | / | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 |
| Super Cab | 167.5" | 6.2L Gas | 100/1350 | 100/1350 | / | / | / | / | / | / | / |
| | | 7.3L Gas | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 |
| | | 6.7 Diesel | 100/1075 | 100/1075 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 |
| | 191.5" | 6.2L Gas | / | / | / | / | / | / | / | / | / |
| | | 7.3L Gas | / | / | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 |
| | | 6.7 Diesel | / | / | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 |
| Crew Cab | 179.4" | 6.2L Gas | 100/1350 | 100/1350 | / | / | / | / | / | / | / |
| | | 7.3L Gas | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 |
| | | 6.7 Diesel | 100/950 | 100/975 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 |
| | 203.4" | 6.2L Gas | / | / | / | / | / | / | / | / | / |
| | | 7.3L Gas | / | / | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 |
| | | 6.7 Diesel | / | / | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 | 100/1350 |

Model Not Available

(1) Includes Pickups ordered with Pickup Box Delete option.

(2) 100/750 = 100 maximum lb. of permanently attached hardware and maximum 750 lb. of removable plow blade and hardware. The plow and hardware weight limits shown are based upon a vehicle with 33% Ford Option content and a total of 300 lb. for the driver and one front seat passenger (150 lb. each).

(3) Considering maximum GVWR offered (variable)

(4) This chart only shows the Maximum Recommended values.

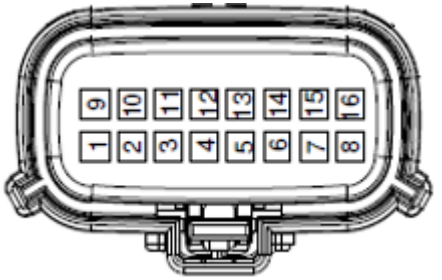
# SNOWPLOW
## Circuit Pinouts
## SUPER DUTY F-250/350/450/550/600



**CNUM: C11-S1-PJ**

**Connector #: 4L3T–14A464–WA**

| Cavity | Circuit | Circuit Description | Option |
|---|---|---|---|
| 1 | GD131 | GND | Halogen or LED Headlamps |
| 2 | CAT17 | TT Park Lamp Relay Control | TBC or Less TBC |
| 3 | CLF05 | RF Low Beam | Halogen or LED Headlamps |
| 4 | CLF04 | LF Low Beam | Halogen or LED Headlamps |
| 5 | CLF04 | LF Low Beam Lwr | Halogen Headlamps |
| 6 | CLF05 | RF Low Beam Lwr | Halogen Headlamps |
| 7 | CLF03 | RF High Beam | Halogen or LED Headlamps |
| 8 | CLF03 | RF High Beam Lwr | Halogen or LED Headlamps |
| 9 | CLF02 | LF High Beam | Halogen or LED Headlamps |
| 10 | CLF02 | LF High Beam Lwr | Halogen or LED Headlamps |
| 11 | GD129 | GND | Halogen or LED Headlamps |
| 12 | N/A | N/A | N/A |
| 13 | CDP03 | R/S SnowPlow Fuse (10A) | Halogen or LED Headlamps |
| 14 | CLS05 | Park Lamps | Halogen or LED Headlamps |
| 15 | CLS25 | RF Turn | Halogen or LED Headlamps |
| 16 | CLS21 | LF Turn | Halogen or LED Headlamps |

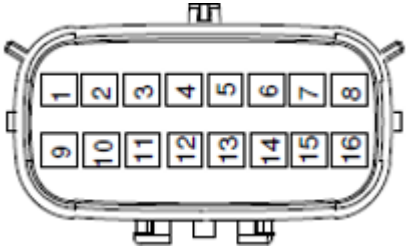



4L3T–14A464–WA

**CNUM: C11-S2-PJ**

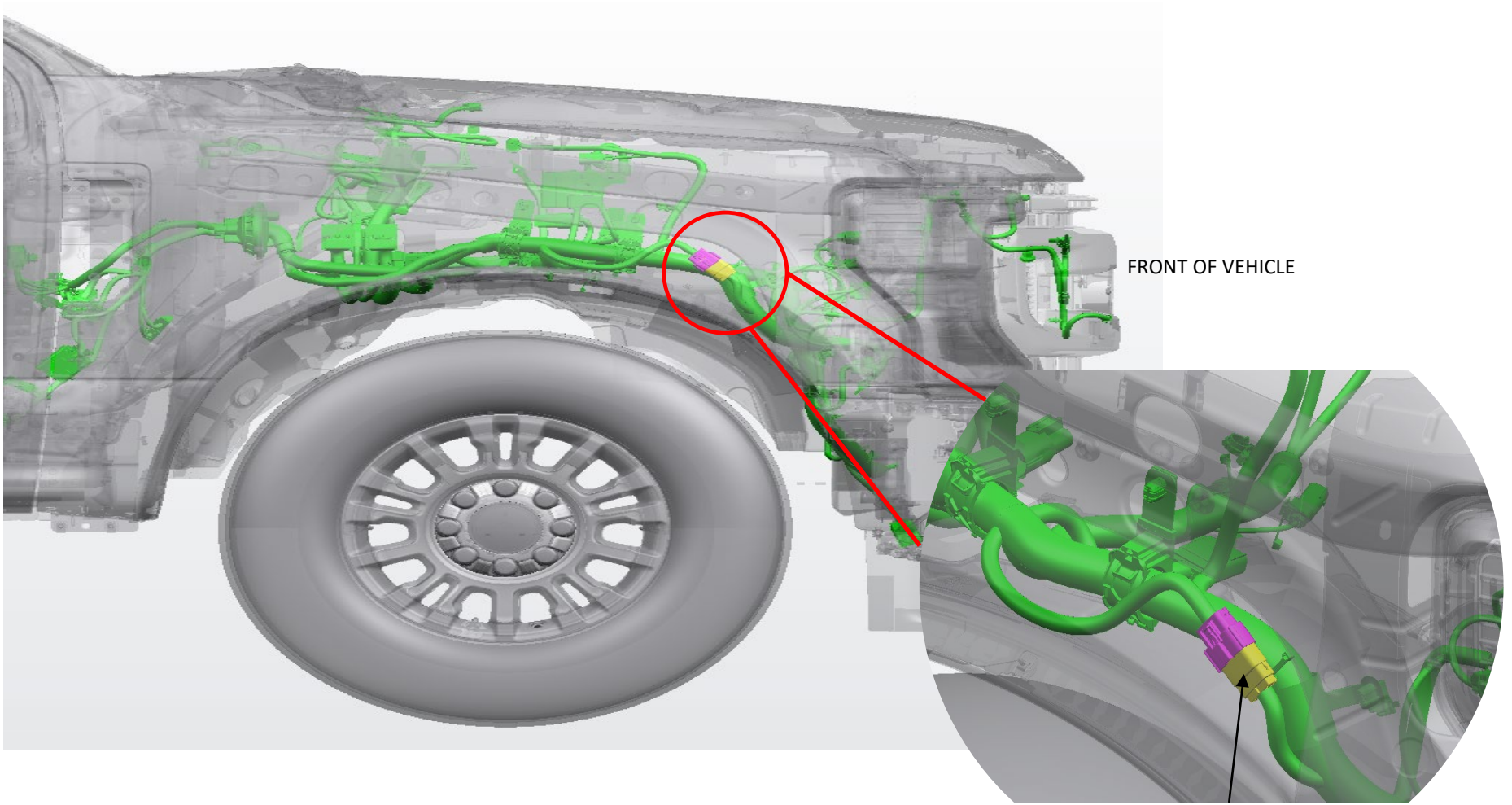
**Connector #: 4L3T–14A624–XB**

| Cavity | Circuit | Circuit Description | Option |
|---|---|---|---|
| 1 | N/A | N/A | N/A |
| 2 | N/A | N/A | N/A |
| 3 | CLF05 | RF Low Beam | Halogen or LED Headlamps |
| 4 | CLF04 | LF Low Beam | Halogen or LED Headlamps |
| 5 | CLF04 | LF Low Beam Lwr | Halogen Headlamps |
| 6 | CLF05 | RF Low Beam Lwr | Halogen Headlamps |
| 7 | CLF03 | RF High Beam | Halogen or LED Headlamps |
| 8 | CLF03 | RF High Beam Lwr | Halogen Headlamps |
| 9 | CLF02 | LF High Beam | Halogen or LED Headlamps |
| 10 | CLF02 | LF High Beam Lwr | Halogen Headlamps |
| 11 | N/A | N/A | N/A |
| 12 | N/A | N/A | N/A |
| 13 | N/A | N/A | N/A |
| 14 | N/A | N/A | N/A |
| 15 | N/A | N/A | N/A |
| 16 | N/A | N/A | N/A |




4L3T–14A464–XB

# SNOWPLOW CONNECTOR LOCATION
# SUPER DUTY F-250/350/450/550/600




**Note: Connector location may be rotated 90 degrees or more inboard on harness bundle**

# SNOWPLOW
# BEST PRACTICES FOR BATTERY MAINTENANCE

## COLD WEATHER BATTERY PERFORMANCE

- Cold weather slows down battery charge rate acceptance. Batteries can accept only 2 to 5 amp-hours of charge during cold ambient temperatures (20F or less).
- Cold-weather snowplow operations can reduce battery charge level significantly (on the order 5 to 20 amp-hours) during a typical plowing session.
- Deep-cycling of the batteries is especially detrimental to battery longevity.
- Cold weather increases viscosity of the hydraulic fluid, causing even larger electrical draw on the truck.
- Snowplow kits (plow hydraulics, lighting, salt-spreaders, etc.) use more energy than alternators can keep up with (during low-speed operations), resulting in batteries having depleted charge levels.
- Batteries in trucks that sit (unused) for long periods of time (~3-4 weeks) will experience lower states of charge due to normal parasitic electrical loads in the vehicle.
- Short-duration and/or low-speed plowing operations do not allow for battery charge level to be adequately replenished.
- Drive your truck (at speed) will not fully be able to replenish battery state of charge in cold temps (<20F).
- Weak batteries will result in slower movement of the plow, dimming lights and possible radio drop-outs and other functional issues.
- Other vocations or installed equipment, such as Lift-gates, winches, etc. may result in similar low-battery issues.

## BEST-PRACTICES FOR BATTERY HEALTH

- Keep all battery connections light and clean. Loose or dirty connections require higher power consumption.
- Prior to the snow season, check to make sure your battery levels are at full state-of-charge. 12.7-12.8V with vehicle off is a healthy battery. Beginning the snowplow season with a depleted battery results in deep-cycle depletion of battery charge.
- Avoid parking (unused) your truck for long periods of time (~3-4 weeks) after plow operations as the battery will develop lower states of charge due to normal parasitic electrical loads in the vehicle.
- Parking the truck after snowplow operations, with battery in discharged state of charge, can lead to sulfation and/or stratification of the acid resulting in irreparable internal damage to the battery.
- Avoid operating the plow with engine not running.
- If you suspect your battery is in a state of discharge, hook a battery charger up when the truck is not in use. If the battery still cannot achieve or maintain adequate charge, the battery should be replaced.
- On a dual-battery truck, if one battery goes bad, always replace in pairs (same size, same capacity).